

U.S. Department of Energy Office of River Protection

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P.O. Box 450 Richland, Washington 99352

01-OMD-019

JUL 2 5 2001

Mr. Michael A. Wilson, Program Manager Nuclear Waste Program State of Washington Department of Ecology 1315 W. Fourth Avenue Kennewick, Washington 99336



EDMC

Dear Mr. Wilson:

TRANSMITTAL OF THE THIRD QUARTERLY REPORT FOR FISCAL YEAR (FY) 2001 AND COMPLETION OF MILESTONE D-001-00-R09 IN SUPPORT OF THE SINGLE-SHELL TANK (SST) INTERIM STABILIZATION (IS) CONSENT DECREE

This letter transmits the third quarterly report (attached) for FY 2001, submitted in compliance with the quarterly reporting requirements for Milestone D-001-00-R09 established in the SST IS Consent Decree No. CT-99-5076-EFS, filed with the U.S. District Court on September 30, 1999.

All of the enforceable Consent Decree milestones have been met to date. As previously reported, the Organic Removal milestone for September 30, 2001, is at risk as a result of the slower than projected drainage rates. The unanticipated waste characteristics may double the original projected pumping duration. These characteristics have also significantly increased the amount of new waste created per gallon of tank waste removed as a result of required water flushes and dilutions.

Transfer Line SN-247, a section of the transfer route from the A/AX complex, did not pass its annual leak test. Failure of this transfer line has delayed the resumption of pumping from Tanks 241-AX-101 and 241-A-101. A replacement route (SN-650) has been identified, and is expected to be operational before the end of the FY.

Tank 241-U-105 was declared Interim Stabilized in support of Milestone D-001-04-T01. Although beyond the third quarter reporting period, Tank 241-S-109 was also declared Interim Stabilized in support of Milestone D-001-13-T01, resulting in a total of ten tanks interim stabilized.

Total waste volume transferred during this quarter was 21,000 gallons including 13,000 gallons of complexed organic waste. This brings the total waste transfers for the project to 1,253,000 gallons and 380,000 gallons, respectively.

If you have any questions, please contact me, or your staff may contact Deborah J. Williams, Operations and Maintenance Division, (509) 376-8488.

Sincerely,

James E. Rasmussen, Director

Environmental Management Division ·

OMD:DJW

cc w/attach:

M. J. Zevenbergen, WSBA #21292

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Administrative Record

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CONSENT DECREE REPORTING DATA

ITEM 1: ACCOMPLISHMENTS AND ISSUES

THIRD QUARTER ACCOMPLISHMENTS

- Continued to pump tanks in U Farm at 45 percent operating efficiency. Total quarterly operating efficiency (for all tanks) was 13 percent based on tanks scheduled to be in operation this quarter.
- Completed installation of the Sundyne pumping system in Tank 241-A-101.
- Transferred 21,000 gallons of waste out of single-shell tanks, including 13,000 gallons of complexed organic waste.
- Completed the installation of replacement transfer lines for Tanks 241-BY-105 and 241-BY-106.
- Completed interim stabilization of Tank 241-U-105 in support of Milestone D-001-04-T01.
- Issued the interim stabilization report for Tank S-109.
- Placed Tank 241-SX-105 in review to confirm that the interim stabilization criteria have been met.

SIX MONTH LOOK AHEAD

- Increase the pump pit shielding and resume pumping of Tank 241-SX-103.
- Complete installation of equipment for the alternate transfer route to AP farm and resume pumping of 241-A-101 and 241-AX-101.
- Replace the pump/pump legs and resume pumping of 241-S-102 and 241-SX-101.
- Initiate pumping of Tanks 241-BY-105 and 241-BY-106 to meet the July 15, 2001 milestone.
- Initiate pumping of four additional Tanks, 241-U-107, 241-U-108, 241-S-111 and 241-SX-102 to meet the December 30, 2001 milestone.
- Complete installation of replacement hose-in-hose transfer systems to support the start up of the tanks in U, S, and SX Farms.
- Complete the data evaluation on Tank 241-SX-105 to verify that the Interim Stabilization criteria have been met.
- Suspend pumping on Tanks 241-U-102 and 241-U-109 and initiate verification that the interim stabilization criteria have been met.

ISSUES AND RECOVERY

1. As previously reported, the liquid drainage rates in organic tanks have been far less than projected. The September 30, 2001 Consent Decree milestone for organic removal is at risk.

The unanticipated waste characteristics may double the original projected pumping duration. These characteristics have also significantly increased the amount of new waste created per gallon of tank waste removed as a result of required water flushes and dilutions. For the net 5,943 gallons of waste removed this quarter from Tank 241-U-102, 43,543 gallons of new waste was created from flushes and dilution. For the net 6,120 gallons of

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waste removed this quarter from Tank 241-U-109, 40,520 gallons of new waste was created from flushes and dilution.

The Tank Farm Contractor will continue to maintain pumping efficiencies as high as possible to maximize the total volume pumped. Both 241-U-102 and 241-U-109 appear now to have less than 50,000 gallons of drainable interstitial liquid remaining.

2. The pumping efficiencies, other than the complexed organic tanks (U Farm), continue to lag as a result of the number of tanks requiring major repairs.

As a result of a series of safety-related incidents, some potentially life threatening, the Tank Farm Contractor restricted, and in some cases stopped, work activities in the field. Work was either stopped or restricted until management could establish compensatory measures to ensure worker safety. Compensatory measures included an increased level of oversight and self-review of work-planning processes to identify potential safety gaps. Work activities were then followed to completion by senior management to ensure that work was being performed in a disciplined and safe manner. Implementation of the additional controls has delayed completion of the repairs of Tanks 241-SX-103, 241-S-102, and 241-SX-101. Repairs will be performed after initiation of pumping of Tanks 241-U-107 and 241-U-108.

Transfer line SN-247, a section of the transfer route from the A/AX complex, did not pass its annual leak test. A replacement route (SN-650) has been identified, and is expected to be operational before the end of the fiscal year. Engineering, work package preparation, and fabrication are under way to activate the replacement transfer route. Completion of this work will allow resumption of pumping of Tanks 241-AX-101 and 241-A-101.

3. Inflow rates have generally been less than predicted. This has limited our total volumes, and may impact future volume performance.

Measured drainage rates have been documented and evaluated. Forecasts have been updated to reflect the reduced flow rates and to evaluate the effect on meeting future milestones. No total volume milestone currently appears to be at risk.

ITEM 2: SCHEDULE COMPLIANCE

FY 2001 CONSENT DECREE MILESTONES

The following Consent Decree Milestone was met during the quarter ending June 30, 2001:

D-001-00-R08 "Submit quarterly report for tank stabilization activities."

CONSENT DECREE SCHEDULE STATUS

The Interim Stabilization Project has met or exceeded all of the enforceable schedule requirements of the Consent Decree. The Project is currently on schedule to initiate pumping of remaining tanks.

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The organic removal milestone for September 30, 2001, is at risk as a result of the slower than projected drainage rates into the saltwell screen. The unanticipated waste characteristics may double the original projected pumping duration.

ITEM 3: SCHEDULE RECOVERY ACTIONS

The Tank Farm Contractor will continue pumping the organic tanks and will implement frequent saltwell screen flushes to minimize potential screen obstruction by tank solids.

ITEM 4: BUDGET/COST STATUS

The third quarter budget/funding level for Stabilization increase from \$30.0M to \$32.6M as a result of BCR ORP-01-079, "U-107 Salt Cake Dissolution," \$2.5M, and BCR ORP-01-112, "Decision and Plan for Organic Removal, C-103," \$0.1M. Ending this period, there was a negative 0.03% schedule variance (\$86K), and a negative 0.08% cost variance (\$183K). The year-end cost is projected to be about \$200K over budget.

ITEM 5: DOE DIRECTIVES

None.

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